B1

(12) UK Patent Application (19) GB (11) 2 328 371 (13) A

(43) Date of A Publication 24.02.1999

(21) Application No 9717665.5

(22) Date of Filing 21.08.1997

(71) Applicant(s)
Henry Albert Paul Barker
14 Shelley Road, EAST GRINSTEAD, West Sussex, RH19 1TA, United Kingdom

(72) Inventor(s)
Henry Albert Paul Barker

(74) Agent and/or Address for Service
Fry Heath & Spence
The Old College, 53 High Street, HORLEY, Surrey, RH6 7BN, United Kingdom

(51) INT CL[6]
A45F 5/00

(52) UK CL (Edition Q)
A4L LAL L130

(56) Documents Cited
GB 0742044 A US 5601356 A US 5205449 A
US 5183193 A US 4832302 A
WPI Abstract Acc No 88-243361 & DE3802877

(58) Field of Search
UK CL (Edition P) A3H H31B, A3V V9B2A, A4L LAL
INT CL[6] A45F 5/00 5/12, A47B 19/00 19/10 23/00
Online : WPI

(54) Abstract Title
A forearm-mounted music sheet holder

(57) A music sheet holder 100 comprising a base 102 attachable to a musician's forearm and a clip 117 for holding the sheet music. The base is arced and padded on its underside and has a strap 106 at each end with hook and pile material fastening means 111, 109. The clip 117 is attached by a post 114 rotatably mounted on the base 102.

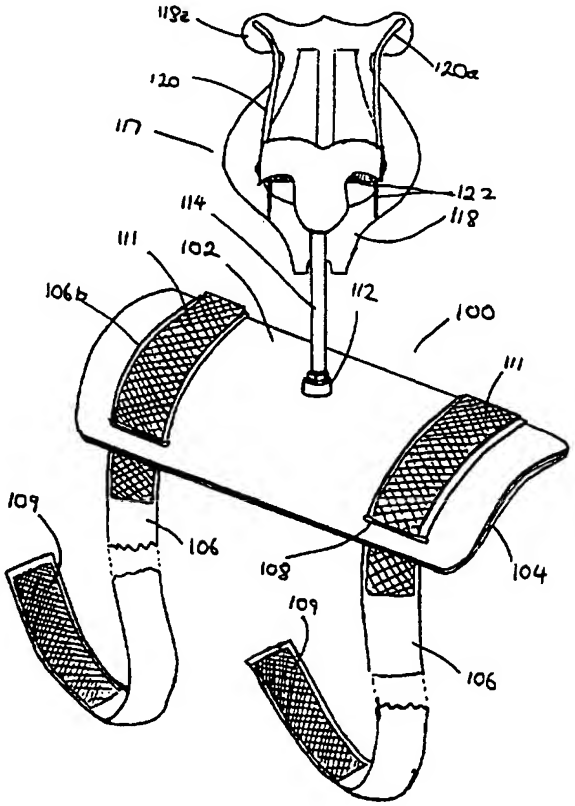

FIG. 2.

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

This print takes account of replacement documents submitted after the date of filing to enable the application to comply with the formal requirements of the Patents Rules 1995

GB 2 328 371 A

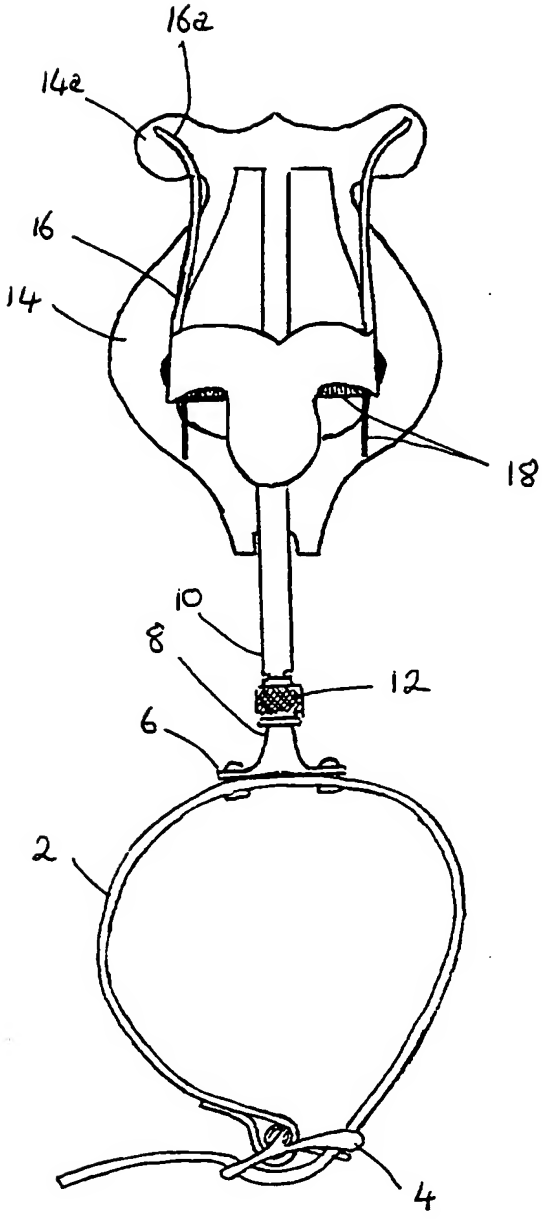

FIG. 1

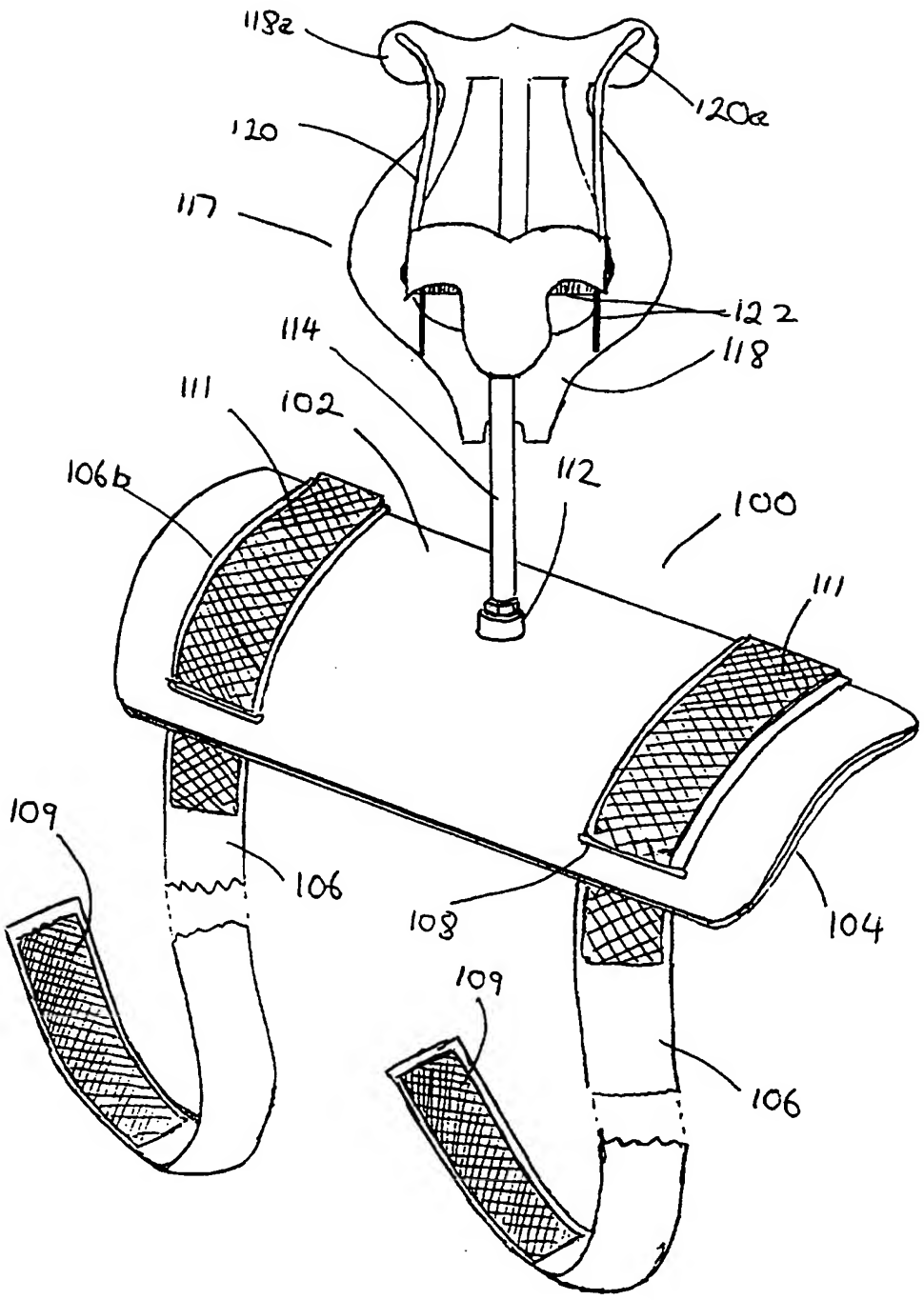
118a
120a
120
117
122
114
118
111
102
112
106b
100
111
109
106
108
104
109
106

FIG. 2.

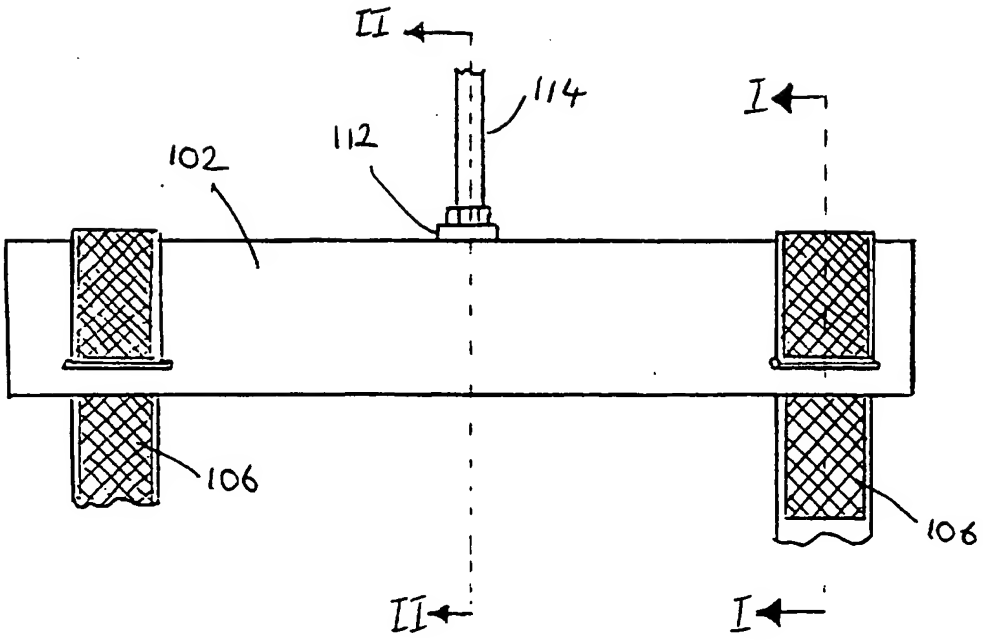

FIG. 3

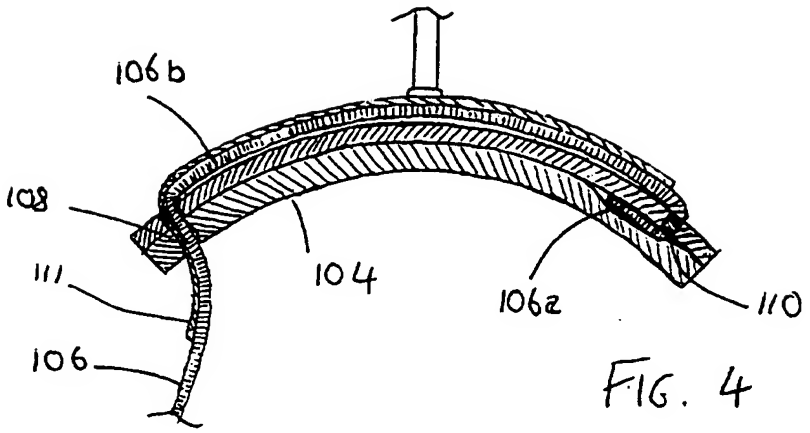

FIG. 4

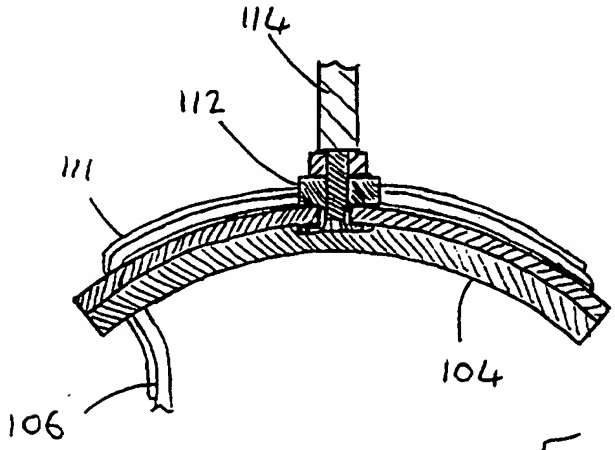

FIG. 5

A MUSIC SHEET HOLDER

This invention relates to a music sheet holder for fastening to the arm of a musician.

Musicians in marching bands generally require a means for holding sheet music whilst they are marching and in the case of instruments such as trumpets, trombones and bugles, the music can be held by a music sheet holder mounted on the instrument itself. For instruments such as flutes, which do not readily lend themselves to the attachment of a music sheet holder, it is conventional for the musician to wear a wrist strap-mounted holder, typically of the type shown in Figure 1.

Thus, a typical known sheet music holder which has been in use for many decades comprises a wrist strap 2 fastened by a buckle 4, to which is attached the holder. The holder comprises a base flange 6 which is riveted to the strap by rivets 8. Extending upwardly from the base flange is a threaded socket 8 into which is screwed a post 10 having a correspondingly threaded end. A knurled locking nut 12 enables the music holder to be locked at various angles with regard to the user's arm. At the upper end of post 10 is mounted a pair of arms 14 and 16, the upper ends 14a and 16a of which are resiliently biased firmly together by means of a spring 18. As will be appreciated, sheet music, or a backing card of a pad of sheet music, is held between the two arms 14 and 16.

Whereas the sheet music hold r shown in Figure 1 retains the sheet music in place very firmly, it nevertheless suffers from a substantial

disadvantage. Thus, as a consequence of the narrowness of the base flange 6, the flexibility of the leather strap 2 and the relative weight of the holder itself, the holder has a tendency to flex and move about which can make it difficult for the musician to read the music whilst marching.

Music sheet holders of the type shown in Figure 1 have been known for many decades, so it is understood, but so far as the applicant is aware, the problems referred to above remained unsolved prior to the present invention.

The present invention solves the aforementioned problem by providing a rigid elongate plate which is arcuate in cross-section to provide a much firmer base on which to mount a music sheet holder clip. Furthermore, by providing several securing straps to enable the plate to be firmly attached to the user's forearm, movement of the holder is substantially reduced.

Accordingly, in a first aspect, the invention provides a music sheet holder comprising a rigid elongate plate at least the underside of which is arcuate in cross-section and is shaped to fit about a portion of a forearm of a user; securing means for securing the plate to the said forearm; and a clip for holding a music sheet, the clip being mounted on, and extending outwardly from, the plate.

Preferably both the upper surface and underside of the plate are arcuate in cross section.

Preferably, the securing means comprises a plurality of securing elements such as straps. For example, the securing means typically can take the form of a pair of straps, one strap at or near each end of the elongate plate. The straps can be formed from, for example, a woven webbing material, or leather, and preferably are provided with an interlockable repositionable fastening means such as 'Velcro' (RTM).

The undersurface of the elongat plate is preferably provided with a cushioning material to make the holder more comfortable to wear. The cushioning material can take the form of a polymeric foam, for example a polypropylene or polyurethane foam.

The clip for holding sheet music is typically mounted on a post which is rotatably mounted in and extends outwardly from the plate, a locking means being provided for locking the rotatable post at a given angle of rotation. The locking means can take the form of a lock-nut mounted on a threaded spigot of the post, the threaded spigot being received in a threaded boss secured to the plate. By virtue of the rotatable mounting, it is possible for the user to ensure that the sheet music is presented at the most favourable angle for reading.

The plate can be formed from, for example, a metal such as mild steel or a rigid plastics material. Where the plate is formed from a metal such as mild steel, typically it is treated to prevent corrosion. For example, the plate can be formed from a galvanised mild steel which in turn can be coated with a suitable powder coating composition, such as Rilsan (RTM).

In a further aspect, the invention provides a music sheet holder as hereinbefore defined having mounted therein sheet music.

The invention will now be illustrated, but not limited, by reference to the accompanying drawings in which:-

Figure 1 is an isometric view of a known type of music sheet holder;

Figure 2 is an isometric view of a music sheet holder according to one embodiment of the invention;

Figure 3 is a side elevation of the embodiment shown in Figure 2;

Figure 4 is a sectional elevation along line I-I of the holder shown in Figure 3; and

Figure 5 is a sectional elevation along line II-II in Figure 3.

Referring now to drawings Figures 2 to 5, a holder 100 according to the invention comprises a rigid elongate plate 102 having an arcuate cross-section and being shaped to fit about a portion of a forearm of a user. Plate 102 is formed from a galvanised mild steel which has been coated with a dry powder coating composition of the type that can be baked on by heating in a suitable oven.

The underside of plate 102 is covered with a layer of polypropylene foam 104 which serves to cushion the plate against the arm of the user to prevent chafing.

The plate can be strapped to the forearm of a user by means of straps 106 which can be formed from a woven synthetic polymeric material such as nylon or polypropylene. Straps 106 pass through slots 108 and 110 in the plate, one end of the strap 106a being glued to the underside of the plate by suitable adhesive such as a hot melt adhesive. To the portion 106b of the strap, which extends over the surface of the plate 102 before passing through slot 110, is attached a releasable fastening fabric 111, for example an interlocking fabric such as 'Velcro' (RTM). The ends 106c of the strap have complementary 'Velcro' patches 109 to enable them to be fastened to the Velcro patches on the top of the plate. In this way, the plate can be fastened to the forearm of a user. By using Velcro, rather than a buckle, the holder is more readily adjusted to fit a wide range of sizes of arm and can be adjusted so as to provide a tight fit to prevent the holder from wobbling.

At approximately the mid-point of the plate 102, a boss 112 is set

into the plate. The boss which can be, for example, a 'round hankbush' boss, is set into the plate by drilling a hole in the plate and then pushing the serrated skirt of the boss through the hole and pressing or hammering the serrated skirt flat to form a rivet-like fastening.

The boss 112 is internally threaded to receive the threaded end of upstanding post 114. A locking nut 116 is also threaded about the post thereby to enable the post to be rotated and locked in any given angle of rotation with respect to the plate.

Post 114 has secured to the upper end thereof, by means of soldering, brazing or welding, an arm 118 of a spring-clip holder 117. Pivotally mounted on plate 118 by means of a pivot post (not shown) is spring-clip arm 120, the ends of the two arms 118a and 120a being resiliently biased into firm engagement by means of a spring 122.

A music sheet or a booklet containing music sheets can be placed between the arms 118 and 120 and held between the arms by the force of the spring in known fashion. The angle at which the sheet music is presented to the user can be optimised by rotating the spring clip holder 17 to a desired position and locking it in place with the locking nut.

By providing a rigid elongate plate which fits snugly against the forearm, movement of the music holder clip relative to the arm is minimised, thereby avoiding difficulties to the user in reading the music as he or she is marching along.

It will readily be apparent that numerous modifications and can be made to the music sheet holder shown in Figures 2 to 5 without departing from the principles underlying the invention, and all such modifications and alterations are within the scope of this Application.

CLAIMS

1. A music sheet holder comprising a rigid elongate plate at least the underside of which is arcuate in cross-section and is shaped to fit about a portion of a forearm of a user; securing means for securing the plate to the said forearm; and a clip for holding a music sheet the clip being mounted on and extending outwardly from the plate.

2. A music sheet holder according to claim 1 wherein both the upper surface and underside of the plate are arcuate in cross section.

3. A music sheet holder according to claim 1 or claim 2 wherein the securing means comprises a pair of straps at or near each end of the plate.

4. A music sheet holder according to claim 3 wherein the straps are provided with a 'Velcro' (RTM) type fastening means.

5. A music sheet holder according to any one of the preceding claims where in a layer of cushioning material is provided on the underside of the elongate plate.

6. A music sheet holder according to claim 5 wherein the cushioning material is a polymeric foam.

7. A music sheet holder according to claim 6 wherein the polymeric foam is a polypropylene or polyurethane foam.

8. A music sheet holder according to any one of the preceding claims wherein the clip for holding the music sheet is mounted on a rotatable post, and locking means are provided for locking the rotatable post at

a given angle of rotation relative to the plate.

9. A music sheet holder according to any one of the preceding claims wherein the plate is formed from a metal or a rigid plastics material.

10. A music sheet holder substantially as described herein with reference to Figures 2 to 5.

11. A music sheet holder as defined in any one of the preceding claims having mounted therein sheet music.

The Patent Office

Application N :	GB 9717665.5	**Examiner:**	Emma Leland
Claims searched:	1-11	**Date of search:**	19 November 1998

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.P): A4L (LAL); A3H (H31B); A3V (V9B2A)

Int Cl (Ed.6): A45F (5/00 5/12); A47B (19/00 19/10 23/00)

Other: Online : WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage		Relevant to claims
X	GB 742044	Bowers - fig. 1	1,2,5,8&9
Y	US 5601356	McWilliams - figs. 1&2	1-6&9
A	US 5205449	Davies - fig.1	1
A	US 5183193	Brandell - figs. 1,2&9	1
Y	US 4832302	Anderson - figs. 2&4	1-6&9
Y	WPI Abstract Acc No 88-243361 & DE3802877 Spennes J - see abstract and figure		1-6&9

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.